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Remarks

Statement of Substance of Interview

Applicant thanks the Examiner for participating in a telephone interview with the undersigned representative on May 27, 2008, in which the undersigned and the Examiner discussed the Examiner's comments in the Office Action of December 10, 2007.

During the interview, with respect to the prior art, Applicant's representative pointed the Examiner to the claim language in claim 120 referencing display "with interaction by an operator" of images of teeth of the patient in suggested post-treatment tooth positions, "receiving feedback information on the suggested post treatment positions ... from a person, other than the operator", and "providing a custom orthodontic appliance ... in accordance with the feedback information." Claim 124 similarly recites display "on a computer screen images of teeth of the patient in suggested post-treatment tooth positions", "receiving feedback information on the suggested post-treatment positions and orientations from a person who as interactively viewed a display of the provided images", the feedback information including one or more of "approving at least some of the suggested post-treatment positions and orientations " and "changing at least one of the suggested post-treatment tooth positions and orientations," followed by "providing a custom orthodontic appliance ... in accordance with the feedback information."

Applicant noted that the declaration evidence presented to the Examiner establishes that this sequence of steps was reduced to practice within the Assignee's facility, and pointed out that the claim language as presently stated is readable upon the practice of the claimed steps within a single facility or at geographically distant locations.

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During the interview, the Examiner requested written elaboration on a number of specific points. Namely:

1. The Examiner requested that Applicant provide a written identification of the disclosure in the specification relating to the method steps discussed above.
2. The Examiner noted that one of the declarations presented is submitted by Joseph Jordan, who is not a named inventor, and requested written comment on the applicability of Rule 131 to the submission of non-inventor declarations.

Specification Support

Taking the Examiner's first query, the disclosure relating to the approval or revision of a computerized presentation of suggested tooth positions (which is termed "feedback" in the claim language), was a subject of Applicant's response filed August 8, 2006. As referenced there, the specification at page 9 line 36 to page 10, line 15, states

The initial determinations of finish position produce a precise prediction of the prescribed treatment, taking into account the programmed algorithms and the exact three-dimensional shapes of the tooth surfaces. This results in an ideal dental or clinical archform or other intermediate or final tooth arrangement in which a treatment digital model, in the form of three-dimensional computer images and numerical data, is provided for review, revision or approval by the orthodontist 14. ... An image of the proposed treatment result is communicated digitally to the orthodontist 14 through a computer network or other data link 31 connected between the design computer 30b at the appliance design facility 13 and an interactive computer terminal 32 at the office 11 of the orthodontist 14. The link 31 along with software in the computers 32 and 30b provide an interactive system through which the orthodontist can manipulate the initial determinations of calculated treatment positions as well as the course of treatment in response to which the design computer 30b recalculates the final

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treatment positions of the teeth and generates display data for further review, revision or approval by the orthodontist 14. Once the tooth treatment positions are approved by the orthodontist 14, the computer 30b automatically designs the appliance under the supervision of an operator 28.

The figure referenced by this text is Fig. 1, which clearly shows the communication of information for "review, revision or approval" over a computer network. Applicant thus submits that the specification as originally filed clearly lends support to the claim language that is now presented. If, however, the Examiner has concern over particular language, the Examiner is requested to specifically identify the claim language that is of concern so that Applicant may provide specific responsive citations for the claim language at issue.

Rule 131 Declaration Requirements

The Examiner's concern at the interview regarding the submitted declarations, appeared to focus upon the fact that declarant Joseph Jordan is not an inventor. Applicant and the Examiner discussed the substance of Mr. Jordan's declaration of March 28, 2007, which relates Mr. Jordan's personal recollection and documentation of a reduction to practice by the inventors Andreiko and Chapoulaud, that Mr. Jordan witnessed at the Ormco facility prior to October 8, 1998.

Specifically, Mr. Jordan notes that he witnessed Mr. Chapoulaud "interactively operated the computer and demonstrated to me the software for designing a custom orthodontic appliance for repositioning the teeth of a patient ... as images including those corresponding to the original slides were displayed on the computer display." Jordan further notes that "suggested positions and orientations ... were displayed on Eric's computer as images including images

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corresponding to Figs. 5B, 5C and 5D of the present application.” (See paragraph 4) Jordan then notes that “Dr. Andreiko participated in the demonstration” and the “explanation of Dr. Andreiko included the viewing by Dr. Andreiko and me of the images displayed on a computer screen, including the screen image depicted in Fig. 5C of the present application. Through a keyboard and mouse attached to the computer, Dr. Andreiko interacted with the viewed image to feed back information to the computer before the design of the custom orthodontic appliance. Dr. Andreiko demonstrated the interactive entry of feedback information by selecting, with a mouse, one of the twenty-eight teeth of the patient by way of the controls 76 in the image of Fig. 5C. Dr. Andreiko caused the computer to recalculate the post-treatment positions and orientations, that is, to calculate revised post-treatment positions and orientations, of the teeth.”

With respect to the Examiner’s concern that Mr. Jordan is not an inventor, Applicant notes that the Jordan declaration described above, is a revised version of a first declaration filed by Mr. Jordan signed on December 1, 2003 in response to the Office Action dated June 2, 2003. This first declaration is accompanied by a declaration of the inventor Dr. Craig Andreiko, also signed on December 1, 2003.

In Dr. Andreiko’s declaration filed in response to the Office Action dated June 2, 2003, in paragraph 2, Dr. Andreiko relates that he “participated in the making of the slides referred to in [Mr. Jordan’s] declaration and the sending of the slides to him.” Dr. Andreiko also states that “I was present at the demonstration, referred to in his declaration, of the software to him by Eric Chapoulaud”. In paragraph 5, Dr. Andreiko states that in the demonstration “the person viewing the display, in this case Eric, clicked on the command button to initiate the ‘set-

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up', in response to which the computer calculated finish positions. ... The software operated to accept any changes or adjustments to the calculated tooth positions or orientations and to recalculate finish positions based on the adjustments entered through the controls on the display by the person viewing the display."

Applicant thus submits that the declarations presented establish the reduction to practice of the claimed invention, including the creation of a set-up by an operator, the modification of that setup by a person other than the operator, and the creation of a custom appliance based on the modified setup. Applicant believes that the declarations are in compliance with Rule 131 and establish the reduction to practice at a date prior to October 4, 1998, thus predating the Lehmann et al. '751 patent relied upon by the Examiner.

Applicant notes that Rule 131 does not prohibit the submission of non-inventor declarations as part of a submission under Rule 131. Indeed, Applicant submits that there is evidentiary value in a non-inventor declaration that supports and corroborates an inventor's declaration, as Applicant has provided here. Applicant does not, therefore, believe that the declarations submitted are noncompliant with Rule 131.

Prior Art

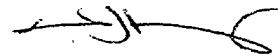
As noted in Applicant's Response to Office Action submitted September 19, 2007, Applicant believes that the evidence submitted avoids the Lehmann et al. '751 patent as prior art, and as a consequence, Chishti et al. is the only reference available to the Examiner, which the Examiner apparently concedes is not anticipatory. Therefore, Applicant respectfully submits that the claims are allowable.

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If any petition for extension of time is necessary to accompany this communication, please consider this paper a petition for such an extension of time, and apply the appropriate extension of time fee to Deposit Account 23-3000. If any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,



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